# De haast van Albertine: Reizen in de technologische cultuur: naar een theorie van passages.

## Summary

# Albertine in a hurry.
## Travel in technological culture: towards a theory of passages

*Albertine in a hurry* is concerned with the debates on public problems related to mobility and the innovations that are suggested to solve these problems. Since the 1970s, mobility problems have been described and analysed within a conceptual framework that indicates the inevitability of increased mobility on the one hand and the many problems resulting from this growth on the other. Arguing along these lines, I suggest, often leads to dead end streets. My thesis sets out to enrich and augment the dominant vocabulary in debates on mobility. Along with transportation economists, urban planners, social geographers and traffic engineers, it claims that both travel speed and travel time are crucial factors in understanding the character of modern travel. Within these disciplines, travel speed and travel time would normally be considered as quantitative, decontextualized variables in models that explain travel behaviour. By analysing four exemplars of modern traveling, I argue that travel speed and travel time can also be understood as the product of historical and contextualized transit practices. In order to travel either quickly or slowly, *passages* have to be designed, created, repaired and legitimized. Using this new concept, I am able to render a pragmatic understanding of the way people travel from one place to another. While reformulating mobility problems as design problems that are related to 'passages' does not solve them, I do claim that the quality of our debates will improve. The conceptual framework I develop enables to question some of the mobility innovations that have been suggested in a new way: how can they be conceived of as passages? How are these passages created? Who controls the 'switchbord'? What are the politics of these new passages? The point is that travel

speeds can never be a sufficient argument for mobility innovations; instead we should envision different passages and present them as argued choices, not between different speeds but between different 'worlds'.

To create a starting point for my analysis, in *chapter 1* I reconstruct three discourses that explain the importance of increasing travel speed in the modern era: a technological-deterministic, an economic and a cultural-utopian discourse. Arguing within the technological-determinist discourse, transportation technology (both vehicles and infrastructure) follows a logical sequence in which faster means of transportation replace slower ones. But why do people choose faster transport? Economists argue that people will allocate their time in such a way that they maximise their utility. Because travel time can be considered as a disutility, people will choose fast transportation. Another pull-factor it is the cultural-utopian image of a 'zero friction' society in which progress and mobility go together. An examplar of this discourse is the 1939-1940 New York World's Fair, where General Motors and Chrysler built exhibitions that portrayed fast travel as a precondition for a modern, individualist society.

The promise of saving time by traveling faster has been criticized by advocates of slowness as a fallacy: time 'saved' will be spent on other activities (Sachs). An example from the novel *Remembrance of Things Past* by Proust illustrates this paradox. One of the characters, Albertine, travels in a car for the first time. She does not believe that she can travel to two distant villages in one day. Although one would expect her to save a day by traveling by car, when she arrives at her friends house in the first village, she already wants to hurry on to the next village. This paradox – that speed doesn't save time – can be explained by indicating what the 'slowness'-discourses share with the 'speed'-discourses: fast transportation leads to haste, ergo slow transportation brings us rest. To escape from this discursive gridlock, one has to examine the way time is used to create the comparative perspective implicated in the words 'fast' and 'slow'.

Many theories on time create dichotomies between subjective and

objective time. An example is McTaggart's 1908 distinction between A-series time, when we use concepts like past, present and future and which assumes an observer, and B-series time, when we use concepts like earlier and later and no observer is assumed. A third concept of time can be taken from the work of Elias who considers time as a social construction and studies the ways people create temporal orders to coordinate social life. Braudel's work also makes clear that time scales should be seen as a construction. Speed and slowness are relational concepts that depend on a context. One can sit quietly in a fast moving train, as in a fragment from Hawthorne's 1851 novel *The House with the Seven Seals*. This contextual 'C-series time' will be a heuristic device in my analysis of travel time: it is never given, but has to be constructed as a temporal order within historical practices.

*Chapter* 2 takes the recent history of the Dutch debate on mobility politics as evidence for the claim that a B-series conceptual framework, in which time is quantified and decontextualized, can explain many phenomena related to mobility, but also has shortcomings. Starting in the early 1970s, politicians have argued that increased mobility will lead to future problems, ranging from congestion in urban areas, unsafe roads, problems that are related to the quality of life (noise, pollution, health risks, urban sprawl etc.) and problems resulting from unequal access to car-centred transportation systems, leading to social exclusion. A variety of policy measures aimed at changing people's travel behaviour have been suggested, and some were implemented. However, in the long run the basic social dilemma remains: benefits for an individual traveler lead to societal costs. It seems impossible to find a way out of this dilemma and policy analysis can explain why. The basic dilemma is not solved but is continually reformulated in new discourse coalitions (Hajer) and by new problem owners (Gusfield) who dominate the debate. Consequently, problems and solutions rise and fall on the agenda of public debate.

Economists and transportation experts have tried to explain why mobility continues to increase and why it is so difficult to change people's travel behaviour. An exemplar of their style of reasoning can

be found in the 'hypothesis of constant travel time' which states that within a population the mean daily time travelled is constant. In stronger variants of this hypothesis, the constant is taken to be 70 minutes over a long period of time, regardless of culture and country. In the Netherlands, such a hypothesis was formulated by Hupkes in the 1970s as the 'BREVER-law'. Hupkes constructed two scenarios, using his law. The first was based on fast transportation systems like cars and airplanes, the second on the so-called 'softer' and slower modes like public transport, walking and cycling. Political and public debate on mobility has been characterised by two claims: faster modes will save time and these time gains can be achieved without losses elsewhere. Hupkes uses his BREVER-law to show that the arguments behind these clams are invalid: because travel time is constant, faster modes will lead to greater distances travelled and thus to increased mobility. Hupkes' concept of travel time relies on the quantified B-series and renders convincing arguments, but it does so at a price. Innovation boils down to the choice between two scenario's, the one characterized by 'accelerating' and the other by 'breaking'. Because the quantified nature of travel time is not at stake in this style of reasoning, it becomes even more central to the argument. In order to formulate other choices than the one between 'accelerating and breaking', we have to challenge the B-series concept of time in his argument (time is a quantity and therefore we can use it to compare between modes, times and places). To do so, I have worked out a C-series notion of contextualized and historicized travel time in the next four chapters.

The B-series concept of travel time that characterizes the style of reasoning of transportation economists like Hupkes has a history, as becomes clear in *chapter 3*. It assumes that time and space can be seen as separate entities, and as Bauman points out, this is an essential feature of modern societies. Therefore, I start constructing a C-series notion of travel time with the analyses of time and space in modernity as they have been given by sociologists and social geographers. Whereas Hupkes takes travel time as the time people allocate to

travelling, social geographers also look at the relation between time and distance. People move within so-called 'prisms', the total spatial range they can cover within a certain amount of time, Hägerstrand argued, and the size of these prism's is determined by the means of transportation available. A walker moves in a smaller prism than a car traveler. Janelle also underlined the importance of means of transportation when he coined the concept of 'time space convergence', the decrease of travel time between two places.

Using these concepts we can describe modernity as a historical process leading to a 'shrinking globe' on which people move within ever bigger prisms. This idea relates closely to the characteristic experience of modernity that has been summarized in the nineteenth century phrase 'the annihilation of space through time'. This metaphor, implicitly or explicitly, returns in the work of the sociologist Giddens and he social geographer Harvey as they historicize the separation of space and time, and try to explain why modernity is characterized by a process of constant speeding up. But in doing so, both end up in a position that situates the cause of historical change in a quasi autonomous technological development. For Giddens the invention and diffusion of the mechanical clock is decisive, and to this Harvey adds technologies of transportation and communication. As argued in chapter 1, developing a C-series notion of travel time should be able to historicize and contextualize, and Giddens and Harvey went a long way towards doing so. But in presenting time and space as effects of autonomous technological developments, they have swapped one self-evident, autonomous cause for another. Now that time and space can no longer be taken as constants, the explanatory power has shifted to technology. However, technological developments can never be their own explanation. As scholars within the field of science & technology studies have claimed, they are to be explained as the results of a complex and seamless web of social, technological, economic, cultural and political factors. In order to create a C-time notion of travel time, I have to go one step further and describe the technologies that 'shrunk the world' from an actor's perspective.

In the remainder of this chapter, I create this perspective by describing the work that had to be done by Thomas Cook to make the world smaller for his customers. From 1841 on, Thomas Cook organized excursions by train, first to destinations in England and Scotland, later to other European cities and eventually around the world. My claim is that in order to sell travel speed and shorter travel times, Cook had to build *passages*. As a unit of analysis, passages can be described and researched on three levels. First, as heterogeneous spatio-temporal orders that assume both material elements (in the Cook-case: trains, stations, hotel coupons, schedules) and immaterial elements (Cook's teetotalism ideals and colonialist presuppositions). Second, as planned but at the same time contingent orders, that have to be continuously 'repaired', for which Cook relied partly on his famous 'Man from Cook's', an local employee who helped travelers to solve their problems. And third, as orders that both include and exclude people, places and times, which accounts for the fact that the passage of Cook's trip around the world was also shaped by the political topography of the Victorian empire. Travel time can now be analysed in a C-series conceptual framework that not only contextualizes time and space, but also the transit practices that render spatio-temporal orders. In the next chapters, I study three different transit practices to further elaborate these three conceptual levels.

*Chapter 4* focuses on creating the heterogeneous order of a passage. In the previous chapter, I argued that this order is built out of material and immaterial elements. To answer the question of how these elements are connected to render the effect of a swift journey from one place to another, I examine a historical case-study on how car travel in the United States affected the design of the National Parks. There are many explanations for the relatively short period of time in which the transition from train to car took place in North America. One underlines the fact that by car people could travel where and when they wanted. This ubiquity of car travel can be taken as an effect of passages. To analyse these passages, I create an actor's perspective by way of a thought experiment: what connections had to

be made between diverse elements to make places accessible at any time? The 'American Passage' was created not only out of cars, but also roads and highways, gas stations, fast food drive in restaurants, and motels. To connect these elements in such a way that 'flow' was the main effect of a passage, they had to be standardized. As a result, car journeys became more predictable than in the days of the early motorists. Together with the contingency of travel, stories of hardship and adventure on the road disappeared, only to reappear on a narrative and iconographic level. Next to 'place myths' (Shields), 'travel myths' told car travelers how driving America's 'blue highways' could again be experienced as an adventure.

American passages not only made new destinations accessible, they also changed them, as is shown in the example of one of the quintessential American destinations, the National Parks. The dilemma between use and preservation of the parks characterizes the history of National Park Service (NPS) park designs. In the 1930s, park roads, look out points and park museums were designed to blend into in the surrounding landscape. This rustic style was abandonned when in the 1950s the number of visitors by car rose dramatically. Helping all these people to find their way through the parks quickly became the main objective of the new designs that the Mission 66 program introduced in 1956. Visitor centres were located near major intersections, and provided visitors with information so they knew where to find the major sights. Preserving the wilderness while at the same time circulating increasing numbers of car through the parks not only asked for material innovations such as the visitor centres, but also for a constant restyling of the representations and iconography of park nature in 'intermediary landscapes' (Carr). This first case study concludes that to understand the creation of passages, we have to study innovative connections between the material and immaterial elements in the heterogeneous order that enables swift transportation.

The American passage showed that the predictability of a journey is an important precondition for 'flow'. The car traveler knows what to

expect and tries to reduce the contingencies that may cause delays. *Chapter 5* asks how planned passages can be repaired when contingencies nonetheless occur. This second case study focuses on the work that has to be done by the Dutch airline carrier KLM to provide their customers with reliable and punctual flights. How to fly on time when the complexity of the operation increases? Ethnographic research in the Departure Hall on Schiphol Amsterdam Airport and in KLM's Front Office of the Operations Control Center provides an answer. If we follow an air traveler checking in, we see them moving from the check-in counter, through customs, to the gate where he boards the airplane. During the first part of the journey, KLM employees in the departure hall are able to solve problems and air travelers are disciplined step by step. Why this is so becomes clear in the Front Office of the Operations Control Center. Here the processes making up the KLM network on the day of operation are continually monitored. If something goes wrong anywhere – be it in baggage handling, aircraft handling, passenger services or elsewhere – this may affect scheduled departure times. Repairing planned passages relies on three interrelated innovations that date back to the nineteenth century operation of train networks (Beniger). First, the information concerning a moving train had to be send faster than the train itself and the telegraph made this possible. Second, a real time overview of the situation in the network had to be created, which could be done in a control room. Third, in order to synchronize the elements in the network, the power to act in a situation had to be transferred from local employees to the control room.

Identifying these innovations provides a conceptual framework, but does not explain from an actor's perspective how KLM employees repair passages in real time. Therefore, three problematic situations in the Front Office are analysed using the concepts of 'situated action' (Suchman) and 'improvisation' (Ciborra). I argue that a third concept can be taken from the field-notes to conceptualize the interplay between many different temporal orders. When exchanging a broken down plane by a reserve plane, a OCC-employee said: 'This was my 'exchange money' for this day. My next problem will be harder to

solve.' To solve a problem, one can not stop the operation for a moment. One has to rely on 'exchange' that is part of a continually evolving situation. Interviewing and observing the employees in the Front Office suggests different kinds of 'exchange', that can be used to repair passages and fly on time: money, risk, capacity, knowledge and experience, information- and communication technology and authority. Innovating 'exchange' is necessary to connect and synchronize the countless temporal orders that constitute a passage in real time, orders that may be compared to the voices in a fugue: if one is late, the others don't sound right.

A third actor's perspective is necessary to understand how passages are related to each other. This question is examined in *chapter 6*, which focuses on Dutch urban transport and, more specifically, on how the Dutch government tried to design infrastructure aimed at an increased use of bicycles. Unlike in the case of airflight, no centralized decisions are taken when people travel through a city. Urban travelers are each others contingencies and urban space and time are constantly being contested. Innovative solutions for this problem of crossing passages date from the nineteenth century when the traffic landscape was redesigned in order to create both the material and immaterial conditions for the crossing of different passages. Different design styles can be distinguished over time, depending on the amount to which passages are separated or mixed. Regulating the crossing of passages also has immaterial aspects in the form of traffic rules. The crossing of passages requires, what I call, 'ensembles'. Considered from an actor's perspective, they not merely distribute already existing speeds but are constitutive of differences in speed attained. Instead of the crossing of existing speeds, ensembles produce speed or slowness in the way space, time and risk are exchanged between travelers. Because the distribution of space, time and risk between travelers is unequal, the design of ensembles is a matter of politics.

Evidence for this claim comes from the third case study that reconstructs the politics of passages from the example of the Dutch governments Bicycle Masterplan. In the early 1990s, the Dutch

government introduced this policy scheme as a means to increase the use of bicycles in Dutch cities. One of the most important publications during the Bicycle Masterplan period was the *Design Manual for Bicycle Friendly Infrastructure*. I use it to understand an actor's perspective on the innovations needed to create new passages for the bicycle. Analysing the way the Manual treats one of the basic questions in the designing bicycle infrastructure – do bicycles have to be mixed or separated from motorized traffic? – I conclude that the designers' solutions are representative of a technocratic position. They take the differences in speed between motorized and non-motorized traffic as a given and present a broad range of possible design solutions that aim at 'finetuning' form, function and use of infrastructure. In doing so, they ignore the fact that in the design of crossings and road sections the politics of passages are always present, either in the way space, time and risk are distributed on the street level, or in the way the design is implicitly or explicitly the expression of democratic politics. The concept of 'ensembles' makes it possible to formulate a new normative criterion for innovative design. Because there can be no single optimal solution, even after finetuning the details of a situation, a good design should present two or three possible solutions which can be explicitly compared in terms of the way they not only distribute space, time and risk but also create new 'worlds' (Winner).

Can the results of the three case studies be systematized be systematized in a conceptual framework? Would this framework help to enrich and augment the dominant vocabulary in current mobility debates? Would it be possible to use such a framework to assess critically mobility innovations? Questions such as these are taken up in the concluding *chapter 7*. As transportation economists, urban planners, social geographers and traffic engineers do, I hold that travel time and travel speed are important concepts to understand modern travel. Whereas the B-series approach enables the heuristic use of travel time as a quantified variable in descriptive and explanatory models, in this thesis transit practices have been studied

in order to understand how time is created in the activity of traveling. This pragmatist approach entails a time concept in what I have called the C-series and which is linked to a different style of reasoning. Working towards a theory of passages, I should be able not only to give alternative descriptions and explanations of traveling in the technological culture, but also to reformulate the questions in current debates on the problems and politics of mobility, as well as critically assess innovative strategies in solving these problems.

First, the outlines of a theory of passages are sketched. Creating actor's perspectives makes it possible to study and conceptualize the work that is done within transit practices to create passages: heterogeneous spatio-temporal orders that have to continuously repaired and legitimized. This work is never finished, because new solutions constantly have to be found for design dilemmas. Solving these dilemmas involves what could be called 'connecting strategies', ways to connect the heterogeneous material and immaterial elements in the passage. Second, a new vocabulary can be created in which mobility problems are reformulated as design problems. This will improve the quality of the debate because on the agenda are not only dichotomous choices between 'accelerating' or 'breaking', for or against new roads, flow or congestion, speed or slowness. Instead, treating mobility problems as design problems makes it possible to debate different design styles. Thus, a new sensitivity to the question as to what is actually at stake when we talk about something so seemingly technocratic as solving mobility problems. And thirdly, we can critically assess innovations. My conceptual framework indicates that there is always more than one solution. It suggests that innovative solutions can be questioned. Which 'intermediary landscapes' are made? Which forms of 'exchange money' are at stake? How are new distributions of space, time and risk created? Thus, a theory of passages can help to reorder the debate on the future of traveling in a technological culture. The comparative perspective that is opened by a theory of passages has consequences for the way we make our choices: not between speed or slowness, but as Gusfield and Winner put it, between different 'worlds'.